

Applicants' disclosure, one skilled in the art would understand "reduced capacitance" as relative to the standard of a conventional pacemaker as described in the specifications on Page 3, line 28 to Page 4, line 6, on Page 11, line 26 to Page 12, line 26 and on Page 16, lines 4 to 28. Therefore, a rejection of Claims 1 and 19 under 35 U.S.C. § 112, second paragraph, as vague is inappropriate.

In addition, regarding to Claim 19, Examiner contends that "coupling capacitors having a combined reduced capacitance" is not supported by structure. Examiner contends that the capacitors have not been set forth to be coupled or combined together to operate in the system. Applicants respectfully traverse this rejection of Claim 19. The specification supports the structure by setting forth the structural detail for coupling or combining the capacitors to operate in the system at Page 13, line 22 to Page 14, line 16 describing Figure 7. Therefore, a rejection of Claims 19 under 35 U.S.C. § 112, second paragraph, as not supported by structure is inappropriate.

Accordingly, Applicants respectfully request that the rejection of Claims 1 through 36 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Examiner rejects Claims 1, 2, 4, 11, 12, 14, 15, 19, 20, 22, 29, 30, 32, and 33 under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 4,991,583 to Silvian.

Regarding Claim 19, Examiner states that the use of "capacitors having a combined reduced capacitance" is a broad and relative term that does not have to mean the capacitors are physically "connected" but could mean that the capacitors act simultaneously, or in harmony, or that they could both be used for afterpotential reduction. Examiner contends that the system of Silvian shows the use of both capacitors C2 and both capacitors C5 "that together" perform afterpotential reduction and that Silvian describes the use of both capacitors together. Applicants respectfully traverse this rejection. At the outset, Applicants respectfully point out that Silvian is directed toward sensing the heart's intrinsic rhythm not sensing an evoked response. Therefore, Applicants submit that Silvian at Column 8, lines 1 to 2 as cited by Examiner does not teach or suggest attenuating afterpotentials as disclosed by Applicants. Further, Applicants teach and Claim 19 requires, *inter alia*, "coupling capacitors having a combined reduced capacitance that attenuate afterpotentials . . . ." In order for a rejection to be proper under 35 U.S.C. § 102(b), all limitations must be disclosed in the cited reference. Silvian does not teach or suggest coupling

capacitors having a “combined reduced capacitance” that attenuates afterpotentials. Therefore, a rejection of Claim 19 under 35 U.S.C. § 102(b) is inappropriate.

Regarding Claim 1 and Claims 2, 4, 11, 12, 14, 15, 20, 22, 29, 30, 32, and 33, Examiner provides no specific basis for rejection. Applicants submit that the rejection of Claims 1, 2, 4, 11, 12, 14, 15, 20, 22, 29, 30, 32, and 33 under 35 U.S.C. § 102(b) as applied to Claim 19 is also inappropriate for the reasons set forth above with regard to Claim 19. The reasoning set forth for Claim 19 is applicable to Claim 1 because, like Claim 19, Claim 1 includes a “reduced coupling capacitance” limitation. Further, Claims 2, 4, 11, 12, 14, 15, 20, 22, 29, 30, 32, and 33 are dependent from Claims 1 and 19 and therefore the above reasoning is also applicable to these claims.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2, 4, 11, 12, 14, 15, 19, 20, 22, 29, 30, 32, and 33 under 35 U.S.C. § 102(b) be withdrawn.

Further, Examiner rejects Claims 1, 2, 4, 8-15, 19, 20, 22, and 26-33 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Silvian. Examiner suggests that Silvian shows an “ECG amplifier” as a sensing means. Applicants respectfully traverse this rejection. At the outset, Applicants again respectfully point out that { Silvian is directed toward sensing the heart’s intrinsic rhythm not sensing an evoked response. Further, Claims 1 and 19 include the limitation that the coupling capacitor or the combination of capacitors has a reduced capacitance to attenuate afterpotentials. Claims 2, 4, 8-15, 20, 22, and 26-33 all depend from Claims 1 or 19. Silvian does not teach or suggest a coupling capacitor or combination of capacitors have a reduced capacitance to attenuate afterpotentials. In order for a rejection to be proper under 35 U.S.C. § 102(b), all limitations must be found in the cited reference. Alternatively, in order for a rejection to be proper under 35 U.S.C. § 103(a), all limitations must be found in the cited reference or, if not in the references, the limitations must be obvious in view of the ordinary level of skill in the relevant art. Silvian does not teach or suggest a coupling capacitor or combination of capacitors have a reduced capacitance to attenuate afterpotentials nor has Examiner provided any evidence that it is within the one of ordinary skill in the art to use a coupling capacitor or a combination of capacitors having a reduced capacitance to attenuate afterpotentials. Therefore, the rejection of Claims 1 2, 4, 8-15, 19, 20, 22, and 26-33

under 35 U.S.C. § 102(b) as anticipated or, alternatively, under 35 U.S.C. § 103(a) as obvious over Silvian is inappropriate.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2, 4, 8-15, 19, 20, 22, and 26-33 under 35 U.S.C. § 102(b) as anticipated and, alternatively, under 35 U.S.C. § 103(a) as obvious over Silvian be withdrawn.

Examiner rejects Claims 1-4, 6, 11, 15, 19-22, 24, and 33 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,690,683 to Haefner et al. Examiner contends that Haefner et al. meets the relative term “reduced capacitance.” Applicants respectfully traverse this rejection. Haefner et al. teaches a low pass/high pass filter and attenuation circuit including the combination of a resistor and a capacitor, unlike Applicants, who disclose an attenuation circuit including a capacitor having a reduced capacitance. Further, the circuit taught by Haefner et al. is not connected to the pacing circuit as disclosed by Applicants. Because of these structural and functional differences, a rejection under 35 U.S.C. § 102(b) as being anticipated is inappropriate and a comparison of Applicants’ disclosure to Haefner et al. to establish the relative term “reduced capacitance” is also inappropriate.

Accordingly, Applicants respectfully request that the rejection of Claims 1-4, 6, 11, 15, 19-22, 24, and 33 under 35 U.S.C. § 102(b) as being anticipated by Haefner et al. be withdrawn.

Examiner rejects Claims 1, 2 16-20, and 34-36 under 35 U.S.C. § 102(e) as anticipated by U.S. Pat. No. 5,843,136 by Zhu et al. or U.S. Pat. No. 6,044,296 by Zhu et al. Applicants respectfully traverse this rejection of the claims. For a rejection under § 102(e) to be proper, all limitations of the claims must be found in the cited reference. Neither Zhu et al. patent teaches or suggests a sensing means (or circuit) including multiple independent blanking switches corresponding to independent electrodes. Claims 1, 2 16-20, and 34-36 include a limitation for multiple independent blanking switches corresponding to independent electrodes. Therefore, a rejection under 35 U.S.C. 102(e) is inappropriate.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2, 16-20, and 34-36 under 35 U.S.C. § 102(e) as being anticipated by either Zhu et al. be withdrawn.

Examiner rejected Claims 1, 2 16-20, and 34-36 under 35 U.S.C. § 102(f) as being invented in U.S. Pat. No. 5,843,136 by Zhu et al. or U.S. Pat. No. 6,044,296 by Zhu et al. Applicants respectfully direct Examiner’s attention to Applicants’ specification at page 11, line

29 through page 12, line 15 and elsewhere throughout the specification where Applicants' disclose a sensing means (or circuit) including multiple independent blanking switches corresponding to independent electrodes. Neither Zhu et al. teaches or suggests a sensing means (or circuit) including multiple independent blanking switches corresponding to independent electrodes. Claims 1, 2, 16-20, and 34-36 rejected under 35 U.S.C. 102(f) include this limitation. Therefore, Applicants did invent the claimed subject matter and a rejection under 35 U.S.C. § 102(f) is inappropriate.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2 16-20, and 34-36 under 35 U.S.C. § 102(f) as being invented by Zhu et al be withdrawn.

Examiner rejected Claims 3, 5-7, 21, and 23-25 under 35 U.S.C. § 103(a) over Silvian in view of one of ordinary skill in the art, Examiner suggests that Silvian discloses the claimed invention except for sensing the evoked response between a ventricular or an atrial electrode and the pacer's can; and that the addition of these elements would be obvious to one skilled in the art. Applicants respectfully traverse the rejection. At the outset, Applicants again respectfully point out that Silvian is directed toward sensing the heart's intrinsic rhythm not sensing an evoked response. Further, in addition to the features cited by Examiner, the rejected claims include at least one coupling capacitor having a reduced capacitance electrically coupled to a pacing charge storage capacitor. Silvian does not teach or suggest a coupling capacitor having a reduced capacitance electrically coupled to a pacing charge storage capacitor. Again, obviousness under 35 U.S.C. § 103(a) cannot be established by combining the teachings of the prior art to produce the claimed invention when, combined, the teachings of the prior art do not teach or suggest the claimed invention. Further, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Therefore, a rejection under 35 U.S.C. § 103(a) is inapposite.

Accordingly, Applicants respectfully request that the rejection of Claims 3, 5-7, 21, and 23-25 as obvious over Silvian be withdrawn.

Examiner rejected Claims 1, 2, 16-20, and 34-36 under 35 U.S.C. § 103(a) as obvious over U.S. Pat. No. 5,843,136 to Zhu et al or U.S. Pat. No. 6,044,296 to Zhu et al. Examiner contends that either Zhu et al. discloses the claimed invention except for the unipolar or bipolar

sensing between atrial electrodes, ventricular electrodes, and case/can electrodes and it would have been obvious to one having ordinary skill in the art to include these configurations. Applicants respectfully traverse this rejection. For a rejection under § 103(a) to be proper, the cited reference must teach or suggest all limitations of the claims must be found in the cited reference in view of the ordinary level of skill in the relevant art. In addition to the above configurations cited by Examiner, neither Zhu et al. teaches or suggests a sensing means (or circuit) including multiple independent blanking switches corresponding to independent electrodes. Claims 1, 2, 16-20, and 34-36 include this limitation and therefore, a rejection under 35 U.S.C. 103(a) is inapposite.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2 16-20, and 34-36 under 35 U.S.C. § 103(a) as being anticipated by either Zhu et al be withdrawn.

Examiner rejected claims 1-36 under the judicially created doctrine of obvious-type double patentable over Claims 1-9 in Zhu et al. Examiner suggests that the conflicting claims are not patentably distinct from each other because it would have been obvious to one skilled in the art at the time the invention was made to include a unipolar or bipolar sensing system in the pacing system to sense, by unipolar or bipolar sensing, evoked responses from the heart using atrial electrodes, ventricular electrodes or can electrodes. In addition to the limitations cited by Examiner, the above rejected claims include the limitation that the sensing means (or circuit) include multiple independent blanking switches corresponding to independent electrodes. Claims 1-9 in Zhu et al do not include nor does Zhu et al teach or suggest a sensing means (or circuit) including multiple independent blanking switches corresponding to independent electrodes. As amended in Applicants' Response dated February 9, 2000, Claims 1-36 include this limitation. For these reasons and for the reasons discussed elsewhere in this Amendment and Response regarding related rejections, a rejection of claims 1-36 under the judicially created doctrine of obvious-type double patenting over Claims 1-9 in Zhu et al is inapposite.

Accordingly, Applicants respectfully request that the rejection of Claims 1-36 as having been previously claimed in Claims 1-9 in Zhu et al be withdrawn.

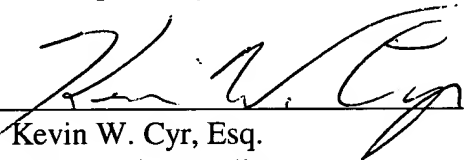
In view of Applicant's amendments and remarks, the claims are believed to be in condition for allowance. Reconsideration, withdrawal of the rejections, and passage of the case to issue is respectfully requested.

If any additional fees are due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-1265. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our deposit account.

Respectfully submitted,

Date: 01/17/00

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